

EPA/OPP MICROBIOLOGY LABORATORY
ESC, Ft. Meade, MD

Standard Operating Procedure
for
Calibration and Maintenance of Timers

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Prepared By: _____ Date: ____/____/____

Print Name: _____

Reviewed By: _____ Date: ____/____/____

Print Name: _____

Technical Staff

_____ Date: ____/____/____

Print Name: _____

QA Officer

_____ Date: ____/____/____

Print Name: _____

Laboratory Director

Date Issued: ____/____/____

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1.0 SCOPE AND APPLICATION:

1.1 This protocol describes the calibration and maintenance of timers.

2.0 DEFINITIONS:

2.1 NIST = National Institute of Standards and Technology

2.2 ISO = International Organization for Standardization

3.0 HEALTH AND SAFETY: Not applicable

4.0 CAUTIONS: None

5.0 INTERFERENCES: None

6.0 PERSONNEL QUALIFICATIONS:

6.1 Personnel must be familiar with the Operation Manuals for the timers.

7.0 SPECIAL APPARATUS AND MATERIALS:

7.1 Timer # 1: VWR Scientific Digital Bench Timer. Serial number 221110531.

7.2 Timer # 2: VWR Scientific Digital Bench Timer. Serial number 159959.

7.3 Timer # 3: VWR Scientific Digital Bench Timer. Serial number 132951.

7.4 Timer # 4: VWR Scientific Digital Bench Timer. Serial number 21269210.

7.5 Timer # 5: VWR Scientific Digital Bench Timer. Serial number 21185949.

7.6 Timer # 6: VWR Scientific Digital Bench Timer. Serial number 21269216.

8.0 INSTRUMENT OR METHOD CALIBRATION: Not applicable

9.0 SAMPLE HANDLING AND STORAGE: Not applicable

10.0 PROCEDURE AND ANALYSIS:

- 10.1 Calibration of the timers, against NIST traceable standards, is performed annually by a certification company which is an ISO 9001/9002 Quality Certified Company.
- 10.2 Follow instructions, provided by the manufacturer, for the operation and cleaning of each timer (see refs. 15.1 and 15.2).

11.0 DATA ANALYSIS/CALCULATIONS: None

12.0 DATA MANAGEMENT/RECORDS MANAGEMENT:

- 12.1 The calibration certificates are filed and maintained in notebooks kept in locked file cabinets in the room D217. Only authorized personnel have access to the locked files. Archived data is subject to OPP's official retention schedule contained in SOP ADM-03, Records and Archives.

13.0 QUALITY CONTROL:

- 13.1 The OPP Microbiology Laboratory conforms to 40 CFR Part 160, Good Laboratory Practices. Appropriate quality control measures are integrated into each SOP.
- 13.2 Annual certification records are maintained, and for quality control purposes, the certification information is documented on the appropriate form (see 16.1).

14.0 NONCONFORMANCE AND CORRECTIVE ACTION: None

15.0 REFERENCES:

- 15.2 Operation Manual for Gralab Timer.
- 15.3 Operation Manuals for VWR Timers.

16.0 FORMS AND DATA SHEETS:

- 16.1 Timer Certification Record Form

Timer Certification Record

OPP Microbiology Laboratory

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* Calibration certificates are archived in notebooks for this purpose and can be found in Room D217 in locked file cabinets.